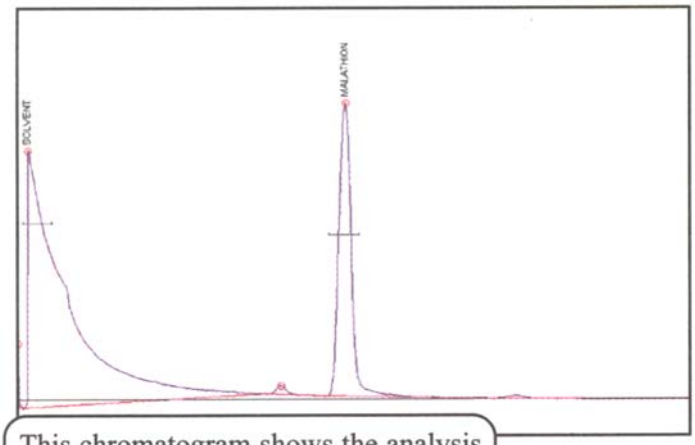
NPD - Nitrogen/Phosphorus Detector



This chromatogram shows the analysis of a 10ppm malathion sample.

- ***Very Selective to Nitrogen and Phosphorus***
- ***Detects down to 100ppb***
- ***Exceptionally rugged NPD bead***
- ***Similar in design to the FID***

The Nitrogen Phosphorus Detector responds to nitrogen-phosphorus compounds about 100,000 times more strongly than normal hydrocarbons. Due to this high degree of selectivity, the NPD is commonly used to detect pesticides, herbicides, and drugs of abuse.

The SRI ceramic NPD bead is exceptionally rugged and long-lasting, offering service from 100 to 1000 hours, depending on operating conditions.

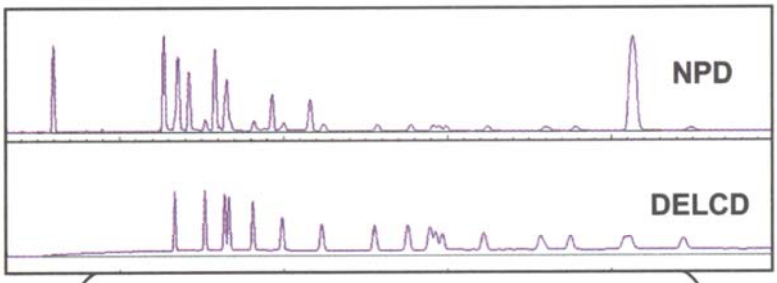
NPD bead

The NPD is similar in design to the FID, except that the hydrogen flow rate is reduced to about 3mL/minute and an electrically heated thermionic bead (NPD bead) is positioned near the jet orifice. Nitrogen or phosphorus containing molecules exiting the column collide with the hot bead and undergo a catalytic surface chemistry reaction. The resulting ions are attracted to a collector electrode, amplified, and output to the data system.

NPD/DELCD Combination Detector

- ***Ideal for pesticide screening***
- ***NPD detects Organophosphorus pesticides***
- ***DELCD detects chlorinated species***

The NPD/DELCD combination detector is ideal for pesticide screening. The NPD selectively detects the organophosphorus pesticides, while the DELCD detects only the chlorinated species.



These two chromatograms show an analysis of 200ppb O-Cl and O-P pesticides. The NPD sees the phosphorus and the DELCD sees the chlorine.

8690-0015	**NPD Detector**
8690-2615	**NPD/DELCD combination detector**